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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/596,070	06/16/2000	Natalie S. Glance	D/A0469	2941

7590 06/11/2003
John E Beck
Xerox Corporation
Xerox Square 20A
Rochester, NY 14644

EXAMINER

NGUYEN, CAM LINH T

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 06/11/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/596,070

Applicant(s)

GLANCE, NATALIE S.

Examiner

Cam-Linh T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kloba et al (U.S. 6,421,717) in view of Alexander S. Tuzhilin (U.S. 6,236,978).

♦ As per claim 1, 10, 13, 15,

Kloba teaches a method for generating recommendations comprising:

- "Providing an item of a particular type to a handheld device having an application for engaging a repetitive with item" See fig. 1C, 160E, col. 4 line 64 – col. 5 line 8 of Kloba.
- "An item of a particular type" corresponds to a particular music, images, etc. (col. 7 line 28 – 32, Kloba). A handheld device can be a PDA or handheld computer (See col. 4, table 2, col. 10 line 41 - 50 of Kloba).
- "Engaging in a repetitive user activity with items of a particular type" corresponds to the number of time that user visits a particular Web site for a same content, or listening to a particular song (col. 16, line 64 – col. 17 line 5 of Kloba).
- "The repetitive activity comprises displaying or playing items of the particular type to a user" corresponds to the time when user views a page on the display or listening to a song.

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- "Generating a history of user interaction with the provided item" See Fig. 1F1, element 166D, col. 16, line 64 – col. 17 line 23 of Kloba. As noted above, when a user views a web page or listening to a song, it must include "an instance of a user causing the application to display or play the provided item" (See fig. 1C, 160F – 160I of Kloba). "The duration of the display or play" corresponds to the amount of time that user spend with that item.
- "Each user interaction occurs during standalone operation of the handheld device disconnected from a network" corresponds to the period of time that the device off-line (See Fig. 1C, col. 17 line 25 - 29 of Kloba). When a device is off-lined, it is considered as a "standalone operation".
- "Uploading the history of user interactions to a network recommender" See Fig. 1F1, 166E – 166F, col.17 line 19 – 23 of Kloba. "A network recommender" corresponds to "the network provider". This provider includes the advertised provider, which considered same as recommender.

Kloba does not clearly disclose how the system transforms the history into an implicit rating of the provided item while providing advertising objects to the user. However, Tuzhilin, on the other hand, discloses a recommendation system that comprises a handheld device (See Fig. 6C, Fig. 7, col. 13 line 8 – 20. Tuzhilin) that tracks user activity (col. 11 line 25 – 29, Tuzhilin), thereby transferring the user history to the server. Further, Tuzhilin teaches:

- "Transforming the history into an implicit rating of the provided item" See Fig. 6a element 140, column 11 line 42 – 52.

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- “The rating comprising predicted ratings for a user for a plurality of items not rated by the user, having a measure of confidence in the prediction and a rationale for the prediction” See col. 12 line 4 – 24.
 - “Items not rated by the user” corresponds to “the new line of perfumes”
 - Because this item is new, therefore, it is not rated by this user.
- “Using the implicit rating of the provided item to generate recommendations of other items” See Fig. 6a element 145, column 11 line 53 – column 12 line 3.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to apply the teaching of Tuzhilin into the system of Kloba in order to provide a recommendation system that works off-line, as well as standalone operation, because the Kloba system provides the benefits of minimizing uses of the internet, greater efficiency, ease of use (col. 5 line 66 – col. 6 line 2, Kloba). Taken together with the benefits from the Tuzhilin system would provide a match between user profiles and the implicit rating. The combination of two systems would have provided an accuracy recommendation system that works better for the users.

♦ As per claim 2, 11 - 12, 20,

- “The device is selected from the group consisting of a personal digital assistant for displaying visual material, an audio player or playing music, and an electronic document viewer” See Table 2 in col. 4, col. 25 line 57 – col. 26 line 6 of Kloba.

♦ As per claim 3, 5, 8, 16 – 19,

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- "The history of user interactions is transformed into recency and frequency of interaction". See Fig. 1F1, element 166D, col. 16, line 64 – col. 17 line 23 of Kloba.

♦ As per claim 4, 6 - 7

Referring to Fig. 3 – 5, Tuzhilin teaches how to generate the dynamic profile construction procedure that includes individual rules (column 5 line 1 – column 10 line 45), and the Estimated Purchasing Need Module with match these rules that include the types and time of items to be purchased, with the user's purchasing history (See column 11 line 47 – 53). Therefore, it is clear that the claimed provision is inherent.

Nonetheless, to expedite prosecution, even if the limitation of the above were not inherent, it would have been obvious to one with ordinary skill in the art at the time the invention was made to include such a steps in order to rate an item.

♦ As per claim 9, 14,

- " Providing a user profile" See Fig. 1 and 2, column 3 line 30 – 50, column 12 line 60 – 65 of Tuzhilin.

Response to Arguments

1. Applicant's arguments filed 05/27/2003 have been fully considered but they are not persuasive.

Applicant argues that "the reference do not teach or suggest the inventive combinations now recited in the independent claims, which include the predicted ratings for the no-rated items for that user". Examiner disagreed.

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Referring to col. 12 line 4 – 24, Tuzhilin reference clearly provided an item that do not rated by user such as a new product can be predicted, and recommend to users. Tuzhilin discloses an example of new product such as a new line of perfume which user did not interact or see before. Based on the user profile, the user usually buy perfume with a discount price when he/she goes to Paris, and at the time this user already purchased a ticket to Paris, the system can “confidence measures” that this user may likely to buy this perfume because it’s very similar with the previous one.

Conclusion

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cam-Linh T. Nguyen whose telephone number is 703-

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305- 1951. The examiner can normally be reached on Monday - Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (703) 308- 1436. The fax phone number for the organization where this application or proceeding is assigned is 703- 746- 7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703- 305- 3900.

Cam-Linh Nguyen
Art Unit 2171


SAFET METJAHIC
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100